



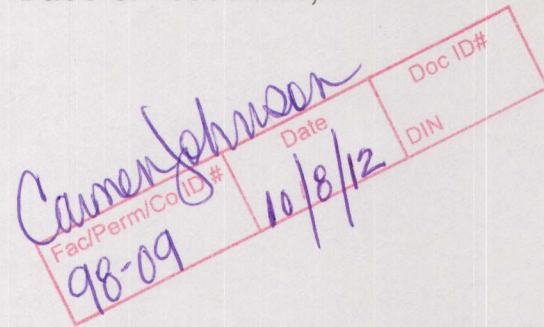
Environmental Compliance and Remediation

April 16, 2004

Babb & Associates, P.A.

Ms. Ellen Lorscheider, Hydrogeologist
NC Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

Re: Wilson County Westside C&D Landfill Site Application
Hydrogeologic and Monitoring Addendum



Dear Ellen:

In response to your comments on the subject site application, we are providing additional information for consideration in the site suitability decision. This addendum addresses hydrogeologic and monitoring issues noted in your March 18, 2004 review correspondence.

Seasonal High Water Table

We have taken a look at some of the historical groundwater levels from existing monitoring wells at the adjacent landfill as well as rainfall records from the Rocky Mount-Wilson Airport for the last two years. A discussion of this information is provided below.

Historical water level measurements from landfill monitoring wells MW-1A and MW-8, which are located approximately 1,000 feet to the southeast of the proposed C&D footprint, are summarized on the attached table. These data indicate that, over the past eight years, historic high water levels were recorded in November 2002 and May 2003. This correlates well with rainfall records from the airport, with high rainfall amounts occurring in the months prior to the elevated water levels observed in the monitoring wells. The elevated water levels observed during the November 2002 monitoring event are likely due to the rainfall amounts observed during August, September, October and November 2002. Similarly, the elevated water levels observed during the May 2003 monitoring event is likely due to the rainfall amounts observed during February, March, April and May 2003. A copy of the rainfall records from the Rocky Mount-Wilson Airport observation station is attached.

With respect to the higher water levels in piezometers located in the topographically higher areas during the April 2, 2003 monitoring event, we believe this observation is likely due to the clay content of the soil in these areas. A review of the boring logs from P-108 and P-109 indicate that these piezometers were installed in primarily clay soil. To a lesser extent, P-101 contains some clay and, based on the clay observed in P-108 and P-109, the sand reported in the bottom five feet of P-101 may be discontinuous. The clay soil present at these piezometer locations likely results

in lower permeability and, coupled with the rainfall amounts seen during the months of February through May 2003, could explain the spikes observed in water levels at these locations. The soils identified in the footprint of the proposed landfill contain less clay and should drain, or return to equilibrium, at a faster rate. Stratigraphic Profile D - D' shows that the center of the proposed footprint for the landfill (B-112) is primarily sand for the upper 20 feet of the profile. The sandy soil identified in the landfill footprint should act to minimize any water level spikes or surges as the higher permeability would allow the water level to return to equilibrium at a faster rate.

In consideration of this information, we propose to use the water levels from the November 19, 2002 monitoring event as the SHGW for design purposes. We believe this SHGW is conservative based on the historical information reviewed from the adjacent landfill monitoring wells.

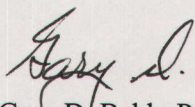
Monitoring Plan

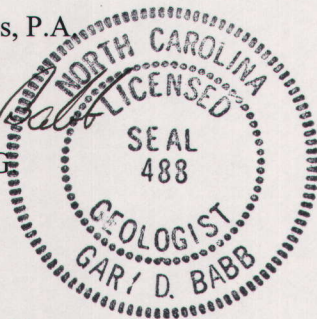
Proposed monitoring well GMW-3 is located close to the waste because of the proximity to the Sediment Basin. We wanted to keep the well out of any area that may be inundated during periods of heavy rainfall. With respect to the comment regarding an additional well to the south of the landfill, we agree that a gap may exist between proposed GMW-2 and GMW-3. To address this issue, we propose to relocate proposed monitoring well GMW-4 from the position shown in the permit application to a location between the proposed locations for GMW-2 and GMW-3. The current proposed location for GMW-4 is hydraulically side-gradient of the proposed landfill cell and would be more beneficial on the southern end of the landfill. Final well locations, and the boundary delineations associated with buffers and groundwater compliance will be illustrated in the Monitoring Plan Drawing submitted with the Construction Plan documents.

If there are any questions regarding this information, please contact me at (919) 836-9992.

Respectfully,

Babb & Associates, P.A.


Gary D. Babb, P.G.
President



Cc: Mr. Steve Clayton
Mr. Gary Ahlberg

Enclosures:

Table 1: Historical Groundwater Level Data

Table 2: Precipitation Data for 2002 & 2003 - KRWI Station, NC CRONOS Database

TABLE 1

**Historical Groundwater Level Information
Wilson County MSWLF
Wilson, North Carolina
Permit #98-01**

Date	MW-1A WL	MW-1A GW Elev.	MW-8 WL	MW-8 GW Elev.
11/19/2003	18.28	94.72	15.43	84.43
5/7/2003	17.75	95.25	14.65	85.21
11/19/02	17.42	95.58	14.39	85.47
11/14/02	17.84	95.16	14.30	85.56
11/7/02	18.16	94.84	14.50	85.36
11/6/02	18.17	94.83	14.40	85.46
11/5/02	18.28	94.72	14.78	85.08
11/4/02	18.25	94.75	14.85	85.01
4/16/02	18.63	94.37	15.30	84.56
10/3/01	19.22	93.78	17.28	82.58
7/23/99	18.80	94.20	16.23	83.63
7/1/97	19.38	93.62	16.47	83.39
11/20/96	18.76	94.24	15.64	84.22
5/31/96	19.44	93.56	15.16	84.70
11/2/95	20.65	92.35	15.78	84.08

Notes:

MW-1A top of casing elevation is 113.00 feet above mean sea level.

MW-8 top of casing elevation is 99.86 feet above mean sea level.

WL - water level.

GW Elev. - groundwater elevation.

TABLE 2
MONTHLY PRECIPITATION FOR 2002-2003

MONTH	PRECIPITATION (inches)	
	2002	2003
January	4.1518	1.713
February	0.0002	4.2835
March	4.6526	5.7326
April	0.5118	4.3219
May	0.042	7.142
June	2.0208	3.5322
July	1.0811	2.653
August	5.9427	0.0027
September	2.9923	0.0921
October	5.2633	1.9823
November	3.5224	2.0314
December	2.6118	4.182
Total	32.7928	37.6687

Notes:

1. Data obtained from the State Climate Office of North Carolina, NC Cronos Database.
2. Data retrieval from KRWI - Rocky Mount-Wilson Airport station.
3. Web site: www.nc-climate.ncsu.edu/cronos
4. Values are monthly sum of daily precipitation at 2m.